



Video Server Digital Encoder & Decoder

User Manual

model no. NE-VS201



Please carefully read these instructions before using this product.

Save this manual for future use.

1 Channel Network Encoder (NE-VS201)

User Manual

Manual Edition 30534AA – OCTOBER 2010

©2000-2011, SECURGEN

All Rights Reserved.

No part of this documentation may be reproduced in any means, electronic or mechanical, for any purpose, except as expressed in the Software License Agreement. Securgen shall not be liable for technical or editorial errors or omissions contained herein. The information in this document is subject to change without notice.

The information in this publication is provided “as is” without warranty of any kind. The entire risk arising out of the use of this information remains with recipient. In no event shall SECURGEN be liable for any direct, consequential, incidental, special, punitive, or other damages whatsoever (including without limitation, damages for loss of business profits, business interruption or loss of business information), even if SECURGEN has been advised of the possibility of such damages and whether in an action or contract or tort, including negligence.

This documentation is copyrighted. All other rights are reserved to SECURGEN. SECURGEN, and DVR Support Center, are registered trademarks of SECURGEN in the United States and elsewhere; Windows, and Windows XP Embedded are registered trademarks of Microsoft Corporation. All other brand and product names are trademarks or registered trademarks of the respective owners.

SECURGEN

Liberty Lake, WA • U.S.A.

Important Safeguards

1. **Read Instructions**

Read all of the safety and operating instructions before using the product.

2. **Retain Instructions**

Save these instructions for future reference.

3. **Attachments / Accessories**

Do not use attachments or accessories unless recommended by the appliance manufacturer as they may cause hazards, damage product and void warranty.

4. **Installation**

Do not place or mount this product in or on an unstable or improperly supported location. Improperly installed product may fall, causing serious injury to a child or adult, and damage to the product. Use only with a mounting device recommended by the manufacturer, or sold with the product. To insure proper mounting, follow the manufacturer's instructions and use only mounting accessories recommended by manufacturer.

5. **Power source**

This product should be operated only from the type of power source indicated on the marking label.

Precautions

Operating

- Before using, make sure power supply and others are properly connected.
- While operating, if any abnormal condition or malfunction is observed, stop using the camera immediately and then contact your local dealer.

Handling

- Do not disassemble or tamper with parts inside the camera.
- Do not drop or subject the camera to shock and vibration as this can damage camera.
- Do not block the cooling holes on the bracket. This camera has a cooling fan inside the housing. Blocking the cooling holes will cause heat to build up and cause malfunction.
- Care must be taken when you clean the clear dome cover. Scratches and dust will ruin the image quality of your camera. Do not use strong or abrasive detergents when cleaning the camera body. Use a dry cloth to clean the camera when it is dirty. In case the dirt is hard to remove, use a mild detergent and wipe the camera gently.

Installation and Storage

- Install electricity wiring carefully. Please note that input electricity to the unit is at tolerance of DC 12V 10%.
- Do not install the camera in areas of extreme temperatures in excess of the allowable range. (-50°C ~50°C / -58°F ~ 122°F)
- Avoid installing in humid or dusty places. The relative humidity must be below 90%.
- Avoid installing in places where radiation is present.
- Avoid installing in places where there are strong magnetic fields and electric signals.
- Avoid installing in places where the encoder would be subject to strong vibrations.

Regulation

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



This symbol on the product or on its packaging indicates that this product shall not be treated as household waste in accordance with Directive 2002/96/EC. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By proper waste handling of this product you ensure that it has no negative consequences for the environment and human health, which could otherwise be caused if this product is thrown into the garbage bin. The recycling of materials will help to conserve natural resources.

For more details information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.



Compliance is evidenced by written declaration from our suppliers, assuring that any potential trace contamination levels of restricted substances are below the maximum level set by EU Directive 2002/95/EC, or are exempted due to their application.

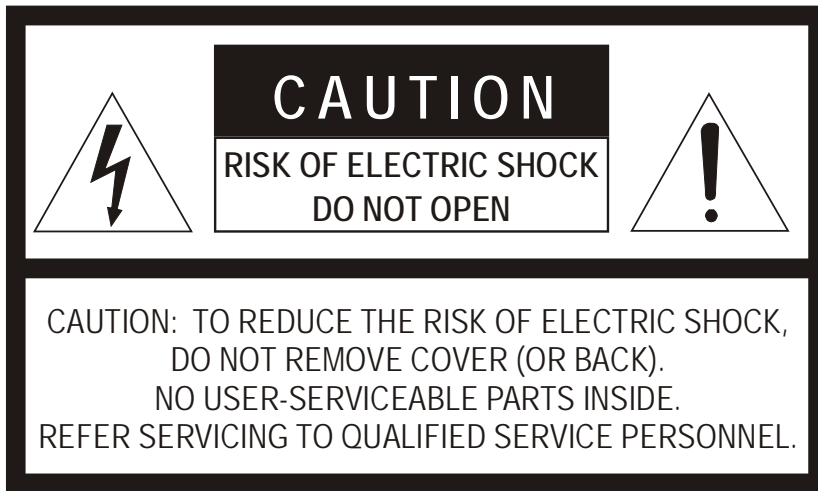
Warning

DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE.

DO NOT OPEN THE HOUSING.

REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

Caution



Standard Warranty

Securgen warrants all new products to be free from defects in workmanship and material under normal use **for a period of two years** after the date of purchase. Any defective product that falls under this warranty will, at Securgen's discretion, be repaired or replaced at no additional charge. Securgen may elect to replace defective products with new or factory reconditioned products of equal or greater value. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Exceptions to this are listed below:

- Three Years on all Digital Recorders
- Three years on all fixed cameras

All products shall be covered by a one year advance replacement warranty*.

Securgen will warrant all otherwise out of warranty replacement parts and repairs for 90 days from the date of Securgen shipment.

The above warranty is the sole warranty made by Securgen and is in lieu of all other warranties by Securgen express and implied, including without limitation the warranties of merchantability and fitness for a particular purpose. Under no circumstances will Securgen be liable for any consequential, incidental, special or exemplary damages arising out of or connected with the sale, delivery, use or performance of the product, even if Securgen is apprised of the likelihood of such damages occurring. In no event shall Securgen liability exceed the purchase price of the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state or country to country.

**Requires corresponding security deposit. Advanced Replacement limited to components only outside of the USA and Canada.*

TABLE OF CONTENTS

Table of Contents	8
Introduction	11
Overview	11
Product Features	11
Getting Started	12
Package Contents	12
Setup and Cable Connection	13
Video Server Setup	13
Dimensions	13
Connector Definition	14
Front	14
Rear	15
Video Server Cable Definition and Requirements	16
Network Cable	16
Power Connection	16
Ethernet Cable Connection	16
Camera Finder	17
Securgen IP Finder	17
Finding IP Devices	17
Default Username and Password	17
Changing the Network Type	18
Setup & Configuration	18
Connecting to the Network device	18
Administrator/User Privileges	18
Viewer Software	19
Viewer Tabs	19
Home	20
System	22
System	22
Security	24

Admin Password.....	24
Add User.....	25
Delete user	25
Edit user.....	25
Network	26
Get IP address automatically (DHCP)	26
Use fixed IP address.....	27
DDNS	28
Mail.....	30
FTP.....	31
Application (Alarm Settings).....	32
Motion Detection	34
Storage Management.....	38
Recording.....	39
Camera Control.....	40
File Location.....	41
View Log File.....	42
View User Information.....	43
View User Login Information	43
View User Privilege.....	43
View Parameters.....	44
Factory Default.....	45
Set Default	45
Reboot	45
Software Version.....	46
Software Upgrade	47
Upgrading the Video Server Viewer Software	47
Maintenance.....	49
Video and Audio Streaming Settings.....	50
Video Format.....	50
Video Compression.....	51
Video OCX Protocol	52
Multicast Mode.....	52
Video Frame Skip.....	54
Audio	55
Transmission Mode	55
PTZ Settings.....	56
OSD Menu.....	56

Logout.....56

Specifications.....57

Video Server Specifications.....57

INTRODUCTION

OVERVIEW

The VS201 one channel network encoder is designed to integrate with existing systems, or install with a new system. The encoder is capable of RS-485 control of PTZ cameras, audio transmission and has a 12vDC output to easily provide power to an analog camera. With an integrated microSD™ slot, the encoder is capable of recording video when detecting motion, or when the onboard sensor is triggered.




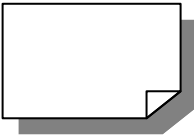

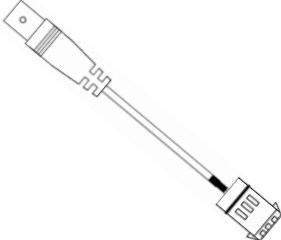
Product Features

- ONVIF™
- H.264 and MJPEG
- D1 Real-time Resolution
- PoE
- Dual Streaming
- Looping Video Output
- PTZ control
- Motion Detection

GETTING STARTED

PACKAGE CONTENTS

Before proceeding, please check that the box contains the items listed here. If any item is missing or has defects, DO NOT install or operate the product and contact your dealer for assistance.

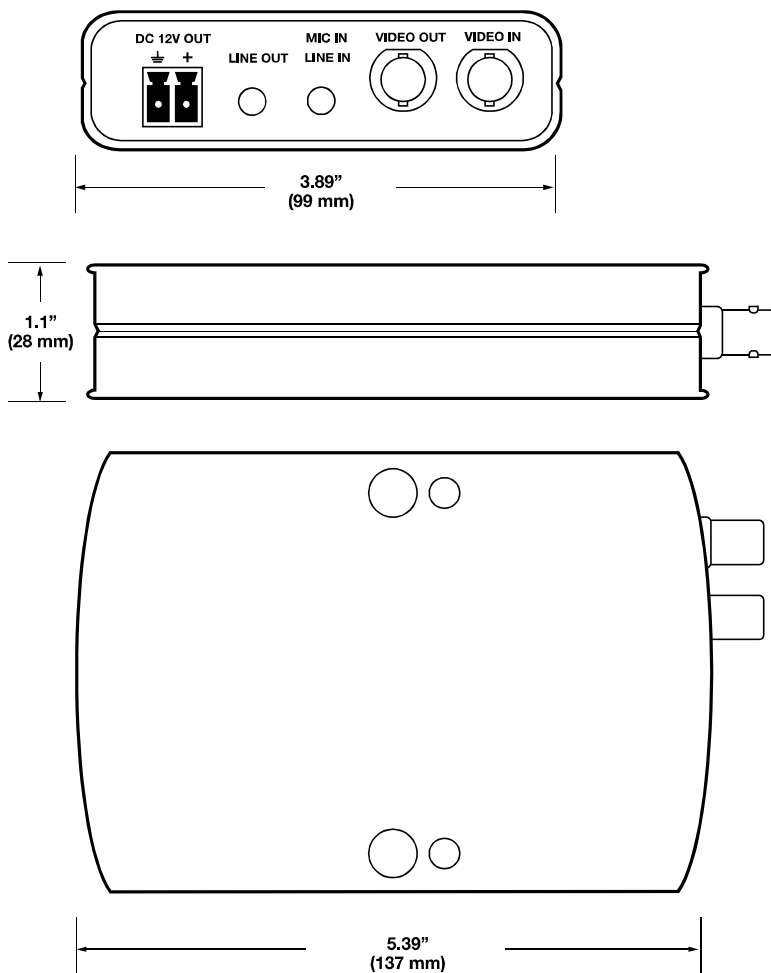
		
Video Server	Screws	Plastic Anchors
		
Quick Start Guide	CD	DC Jack Cable (300mm)

SETUP AND CABLE CONNECTION

Before installing or connecting the video server, please refer to this section.

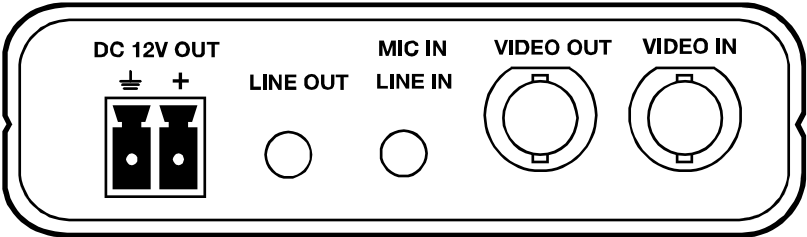
Video Server Setup

Dimensions



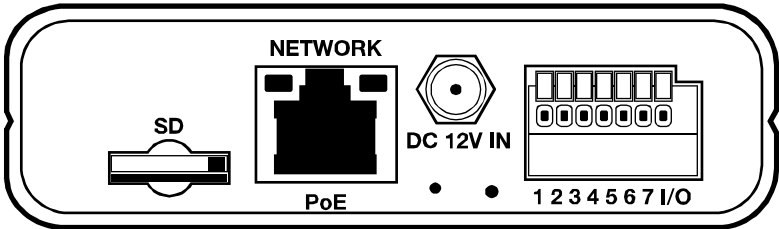
Connector Definition

Front



Connector	Pin	Definition
DC 12V OUT	-	Power Output Connection
LINE OUT	-	Audio Output
MIC IN / LINE IN	-	Audio and Microphone Input
VIDEO OUT	-	Analog Video Output to Monitor
VIDEO IN	-	Analog Video Input to Video Server

Rear



Connector	Pin	Definition
NETWORK / PoE	-	RJ-45 10/100 Mbps Ethernet / PoE
DC 12V IN	-	Power Input
RS-485	1	D+
	2	D-
	3	RS-485 GND
Alarm I/O	4	IN- (GND)
	5	IN+
	6	OUT-
	7	OUT+

Video Server Cable Definition and Requirements

The Network Video Server requires a network cable to carry the video signals to the remote viewing site.

Network Cable

Network cable max length is 328 feet (100m). To avoid signal attenuation, Securgen recommends that you do not exceed 295 feet (90m). You can use Power over Ethernet (PoE) to power compatible cameras using network cables up to the max length.

Power Connection

Make sure the power cable is correctly and firmly connected to the video server.

Power Wire Length Specifications

Wire Gauge	Maximum Distance	Wire Gauge	Maximum Distance
22	27 feet	14	175 feet
20	44 feet	12	279 feet
18	69 feet	10	444 feet
16	110 feet		

Note Ensure that the power supply corresponds with the power requirements of the video server or the device may be damaged. Contact a qualified maintenance engineer with any problems.

Ethernet Cable Connection

Connect one end of the CAT 5 Ethernet cable to the RJ-45 connector of the camera and the other end of the cable to the network switch or router.

Note In some cases, you may need to use an Ethernet crossover cable when connecting the video server directly to the recorder.

Check the status of the link indicator and activity indicator LEDs. If the LEDs are unlit, check the LAN connection.



The Green link light indicates a good network connection.

The Orange activity light flashes to indicate network activity.

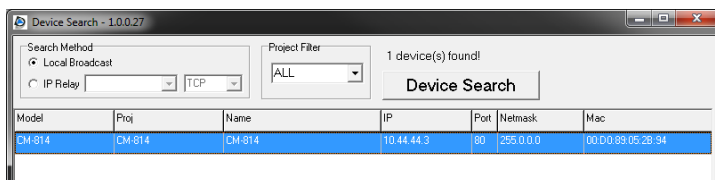
CAMERA FINDER

SECURGEN IP FINDER

Use the included IP Finder software to easily find your network device for initial setup. The Securgen IP Finder software is included on the CD with all Securgen IP devices.

Finding IP Devices

1. Open the Software CD on the recorder.
2. Click **Software** on the software disc menu.
3. Click **Launch Finder Software**.
4. Click **Device Search** on the **Device Search** window.



5. If a **Windows Security Alert** window opens, click **Unblock** to allow the IP utility to access your network.
6. Click **Device Search** again to find all connected IP devices.

Tip The default IP address of the VS201 is 192.168.0.250

7. Right-click the desired network device and select **Browse**.
8. Type the default username and password in the login window to access the video server using your internet browser.

Default Username and Password

The username and password are case sensitive. It is strongly recommended that the password be changed after the initial setup to prevent unauthorized access.

Username – Admin

Password – 1234

Changing the Network Type

You can change the network type from Static IP to DHCP easily from the list of connected IP devices. To change the network type to DHCP:

1. On the list of connected IP devices locate the desired network device and record the **MAC** address,
2. Right-click the network device row and select **Network Setup**.
3. Select the **DHCP** option on the **Network Setup** window and then click **Apply**.
4. Click **OK** to acknowledge the change.
5. After one minute, click **Device Search** to search for all connected IP devices.
6. Locate the network device using the **MAC** address recorded earlier and double click the network device row.
7. Type the **Username** and **Password** to access the network device.

SETUP & CONFIGURATION

CONNECTING TO THE NETWORK DEVICE

1. Locate the network device on the **IP Finder** list.
2. Double-click the network device to open the Viewer software in your web browser.
3. Log in to the network device with the appropriate **User Name** and **Password**.

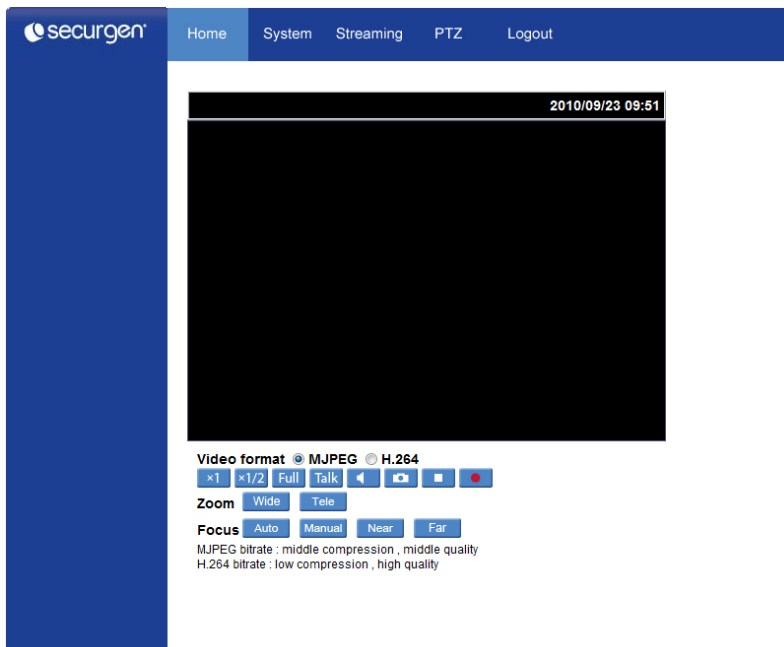
Note The default User name is Admin and the default Password is 1234. The username and password are case sensitive. Secugen recommends you change the Admin password for security reasons.

Administrator/User Privileges

The Administrator account has the authority to configure the network device and authorize user access to the network device. The User accounts have access to the network device with limited authority as defined by the Administrator.

VIEWER SOFTWARE

You must install the viewer software on your PC or DVR to configure the device. The viewer software will install automatically the first time you connect to the network device. If your internet browser doesn't install the viewer software, check the security settings or ActiveX controls and plug-in settings. If your internet browser asks for permission to install the ActiveX control, you must allow the ActiveX control to continue the installation.



Viewer Tabs

Home – Monitor live video.

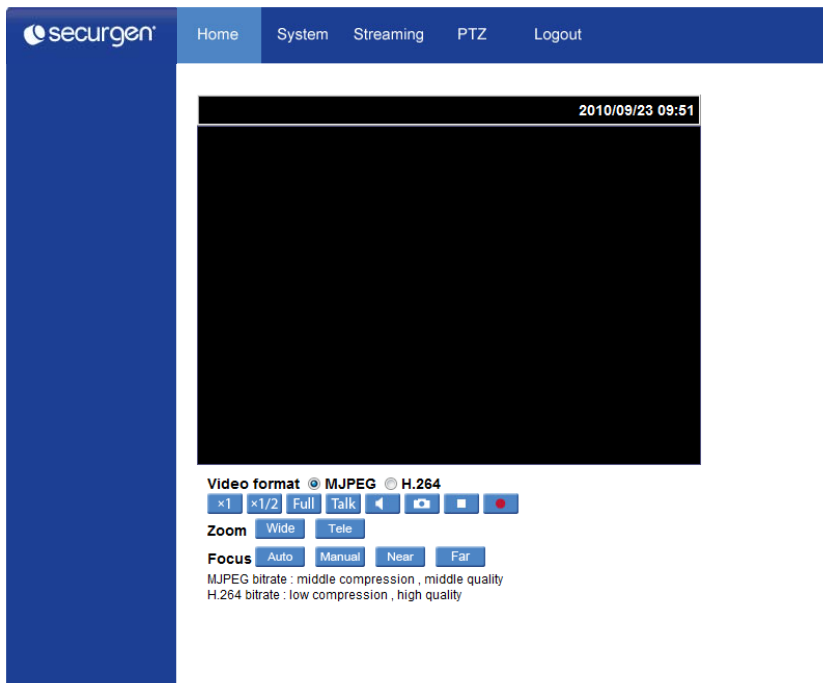
System – Set the host name, system time, root password, and network related settings. (Admin access only)

Streaming – Modify the video resolution and select the audio compression type.

PTZ –Control a PTZ camera and access the camera's on screen menu (if applicable).


Logout – Change user.

Home




Screen Size Adjustment – Click the screen size buttons to adjust image display size x1/2 and full screen.

Digital Zoom Control – In full screen mode, right-click to activate digital zoom and use the scroll wheel to zoom in/out.

Pan/Tilt Control – Move the cursor to the live video pane and drag the pointer  in the desired direction.

Talk – Talk allows the local site to talk to the remote site. This function is only available to Users who have been granted this privilege by the Administrator.

Snapshot – Click the  button, and a JPEG snapshot will automatically be saved in the appointed place. The default location is: C:\.

Note If you are using Windows Vista or 7, you will need to change the Snapshot location. Windows UAC does not allow internet programs to write directly to C:\ for security reasons.

Zoom – Click **Wide** or **Tele** to zoom out or in.

Focus

- **Auto** – Click **Auto** to enable Auto Focus mode. In Auto Focus mode, the camera will automatically and continuously adjust focus regardless of zoom changes or view changes of the camera.
- **Manual** – Click **Manual** to enable the **Near** and **Far** buttons for manual focus control.

System

Note The **System** tab is only accessible by the Administrator.

System

System

Host Name : NE-VS201

Time zone : GMT-08:00 Pacific Time (USA & Canada)

☐ Enable daylight saving time

time offset: 01:00:00

Start date: Jan 1st Sun Start time: 00:00:00

End date: Jan 1st Sun End time: 00:00:00

☒ Sync with computer time

PC date: 2010/09/23 [yyyy/mm/dd]

PC time: 10:37:53 [hh:mm:ss]

☐ Manual

Date: 2010/09/08 [yyyy/mm/dd]

Time: 09:00:00 [hh:mm:ss]

☒ Sync with NTP server

NTP server: 1.pool.ntp.org [host name or IP address]

Update interval: Every hour

Save

Host Name – The Host Name is used to identify the network device on your system. If camera based Motion Detection is enabled and is set to send alarm message by Mail/FTP, the host name entered here will display in the alarm message.

Time Zone – Select your time zone.

Sync With Computer Time – Select to synchronize the network device date and time with the connected DVR.

Manual – Set video date and time manually.

Sync with NTP server – Network Time Protocol (NTP) is an alternate way to synchronize your network device's clock with a NTP server. Specify the server you wish to synchronize in the **NTP Server** box. Then select an **Update Interval**. For more information about NTP, visit www.ntp.org.

Security

securgen Home System Streaming PTZ Logout

System
Security
Network
DDNS
Mail
FTP
Application
Motion detection
Storage management
Recording
Camera Control
File location
View log file
View user information
View parameters
Factory default
Software version
Software upgrade
Maintenance

Security

Admin Password

Admin password

Confirm password

Add User

User name

User password

☒ I/O access ☐ Camera control

☐ Talk ☐ Listen

Manage User

User name -- no user --

Admin Password

To change the administrator password, type a new password in the Admin Password box and confirm below.

Note The maximum length of the password is 14 characters. The following characters are valid: A-Z, a-z, 0-9 and !#\$%&'-.@^_~.

Add User

The user name and passwords are limited to 16 characters. There is a maximum of twenty user accounts

1. Type the new User name and Password
2. Select the appropriate check boxes to give the user Camera Control, Talk and Listen permissions.

I/O access - Basic functions that enable users to view video when accessing to the network device.

Camera control - Allows the User to change camera parameters on the Camera tab.

Talk/Listen --Talk and Listen functions allow the user at the local site (DVR) to communicate with, the administrator at the remote site.

3. Click Add.

Delete user

1. Select the user name on the **User Name** list
2. Click **Delete** to remove the user.

Edit user

1. Select the user name on the **User Name** list
2. Click **Edit** to edit the user password and permissions.
3. Type a new password or the existing password in the User password box

Note You must type a password in the User password box to make any changes to an account.

Note For security reasons every time the user properties are opened, the access boxes are automatically unchecked. Make sure you re-check any user access options any time you edit the user properties..

Network

securgen Home System Streaming PTZ Logout

System

System
Security
Network
DDNS
Mail
FTP
Application
Motion detection
Storage management
Recording
Camera Control
File location
View log file
View user information
View parameters
Factory default
Software version
Software upgrade
Maintenance

Network

General

☐ Get IP address automatically

☒ Use fixed IP address

IP address 192.168.1.105

Subnet mask 255.255.255.0

Default gateway 192.168.1.1

Primary DNS 192.168.1.1

Secondary DNS 0.0.0.0

☐ Use PPPoE

User name

Password

Save

Advanced

Web Server port 80

RTSP port 554

MJPEG over HTTP port 8008

Save

UPnP Setting

☒ Enable UPnP

☐ Enable UPnP port forwarding

Friendly name NE-VS201

Save

You can choose to use a fixed IP address or a dynamic IP address (assigned by a DHCP server or router) for the network device.

Get IP address automatically (DHCP)

The video server comes preconfigured with a fixed IP address, selecting **Get IP address automatically** requires a router or DHCP server to assign an IP address to the network device.

Note Each network device has a unique Media Access Control (MAC) address, which can be used to identify the network device on the network. Record the MAC address of the network device, which can be found using the Securgen IP Finder application and on the label of the network device, for identification in the future.

Use fixed IP address

To set up a new static IP address:

1. Select the **Use fixed IP address** option.
2. Type a new IP address in the **IP address** box.
3. Type a new address in the **Default Gateway** box.
4. Click **Save** to confirm the new setting.

<input checked="" type="radio"/> Use fixed IP address	
IP address	<input type="text" value="10.4.4.12"/>
Subnet mask	<input type="text" value="255.0.0.0"/>
Default gateway	<input type="text" value="10.0.0.50"/>
Primary DNS	<input type="text" value="10.0.0.16"/>
Secondary DNS	<input type="text" value="0.0.0.0"/>

When using static IP address to log in to the network device, you can access it either through Securgen IP Finder software or type the IP address directly in the Address bar of your internet browser.

General

- **IP address** – The IP Address is necessary for network identification.
- **Subnet mask** - Used to determine if the destination is in the same subnet. The default value is 255.255.255.0.
- **Default gateway** - Used to forward frames to destinations on different subnets or for internet access.
- **Primary DNS** - The primary domain name server that translates hostnames into IP addresses.
- **Secondary DNS** - A secondary domain name server that backups the primary DNS.

Advanced

- **Web Server port** - Defines the port that Internet Explorer uses to connect over the web and view video. If this port is changed then the new port must be defined when attempting to web connect (ex: if your network device's IP address is 192.168.0.100 and you change the web port to 8001, then you must type http://192.168.0.100:8001 in your browser).
- **RTSP port** – The default RTSP port is 554; setting range: 1024 ~65535.
- **MJPEG over HTTP port** - The default HTTP Port is 8008; setting range: 1024 ~65535.

Note The MJPEG over HTTP port must not be the same as the web server port.

DDNS

DDNS (Dynamic Domain Name Service) is a service that allows a connection to an IP address using a hostname (URL) address instead of a numeric IP address. Most Internet Service Providers use Dynamic IP Addressing that frequently changes the public IP address of your internet connection; this means when connecting to the network device over the internet you would need to know if your IP address has changed. DDNS automatically redirects traffic to your current IP address when using the hostname address.

The screenshot shows the Securagen web interface. The top navigation bar includes links for Home, System (selected), Streaming, PTZ, and Logout. On the left, a sidebar menu lists various system settings: System, Security, Network, DDNS (selected), Mail, FTP, Application, Motion detection, Storage management, Recording, Camera Control, File location, View log file, View user information, View parameters, Factory default, Software version, Software upgrade, and Maintenance. The main content area is titled 'DDNS' and contains the following configuration options:

- Dynamic DNS**
Use Dynamic DNS If You Want To Use Your DDNS Account.
- ☐ Enable DDNS
- Provider: DynDNS.org(Dynamic) (dropdown menu)
- Host name: [text input field]
- Username/E-mail: [text input field]
- Password/Key: [text input field]
- [Save button]

- **Enable DDNS** – Select the check box to enable DDNS.
- **Provider** - Select a DDNS host from the Provider list.
- **Host name** - Type the registered domain name in the field.
- **Username/E-mail** - Type the username or e-mail required by the DDNS provider for authentication.
- **Password/Key** - Type the password or key required by the DDNS provider for authentication.

Mail

The network device can send an e-mail via Simple Mail Transfer Protocol (SMTP) when motion is detected or when the sensor input is activated. SMTP is a protocol for sending e-mail messages between servers. SMTP is a relatively simple, text-based protocol, where one or more recipients of a message are specified and the message text is transferred. The configuration page is shown as follows:

securagen

HomeSystemStreamingPTZLogout

System

Security

Network

DDNS

Mail

FTP

Application

Motion detection

Storage management

Recording

Camera Control

File location

View log file

View user information

View parameters

Factory default

Software version

Software upgrade

Maintenance

Mail

SMTP

1st SMTP (mail) server

1st SMTP (mail) server port25

1st SMTP account name

1st SMTP password

1st recipient email address

2nd SMTP (mail) server

2nd SMTP (mail) server port25

2nd SMTP account name

2nd SMTP password

2nd recipient email address

Sender email address

Save

Two sets of SMTP accounts can be configured. Each set includes SMTP Server, Account Name, Password and E-mail Address settings. For SMTP server, contact your network service provider for more specific information.

FTP

The network device can send alarm message to a specific File Transfer Protocol (FTP) site when motion is detected or when the sensor input is activated. You can assign alarm message to up to two FTP sites.

securagen Home System Streaming PTZ Logout

System
Security
Network
DDNS
Mail
FTP
Application
Motion detection
Storage management
Recording
Camera Control
File location
View log file
View user information
View parameters
Factory default
Software version
Software upgrade
Maintenance

FTP

Built-in FTP server port 21

1st FTP server

1st FTP server port 21

1st FTP user name

1st FTP password

1st FTP remote folder

☐ 1st FTP passive mode

2nd FTP server

2nd FTP server port 21

2nd FTP user name

2nd FTP password

2nd FTP remote folder

☐ 2nd FTP passive mode

Save

- Enter the FTP details, which include server, server port, user name, password and remote folder, in the appropriate boxes and click **Save** when finished.

Application (Alarm Settings)

The video server is equipped with one alarm input and one alarm output to connect to an alarm system to capture alarm images and notify an Securgen recorder. Make sure the alarm connections are properly wired before configuring alarm related settings on the Application screen.

The screenshot shows the Securgen web interface. The top navigation bar includes 'Home', 'System' (selected), 'Streaming', 'PTZ', and 'Logout'. The left sidebar lists various system settings. The main 'Application' settings page is displayed, featuring several sections: 'Alarm Switch' with 'On' selected; 'Alarm Type' with 'Normal open' selected; 'Alarm Output' with 'Output low' selected; 'Triggered Action' with 'Enable alarm output' checked and other notification options; and 'File Name' with 'image.jpg' as the default and 'Add date/time suffix' selected. A 'Save' button is located at the bottom of the configuration area.

Alarm Switch

- **Alarm Switch** – Enable or disable the alarm function.
- **Alarm Type** – Select an alarm type, **Normally closed** or **Normally open**, that corresponds with the alarm application.
- **Alarm Output** – Define the alarm output signal as low (normally open) or high (normally closed).

Triggered Action

Specify alarm actions that will take place when the alarm is triggered.

- **Enable Alarm Output** – Select this option to activate the alarm output.

- **Send Message by FTP/E-Mail** – Select to send an alarm message to the configured FTP and/or E-Mail when an alarm event occurs.
- **Upload Image by FTP** – Select to assign an FTP site. When the alarm is triggered, event images will be uploaded to the configured FTP site.
- **Upload Image by E-Mail** – Select to assign an e-mail address. When the alarm is triggered, event images will be sent to the configured e-mail address.

Note Make sure SMTP or FTP configuration has been completed. See the Mail and FTP section of this manual for further details.

File Name

Enter a file name in the box, ex. image.jpg. The uploaded image's file name format can be set in this section. Please select the one that meets your requirements.

- **Add date/time suffix**
File name: imageYYMMDD_HHNNSS_XX.jpg
Y: Year, M: Month, D: Day
H: Hour, N: Minute, S: Second
X: Sequence Number
- **Add sequence number suffix (no maximum value)**
File name: imageXXXXXXXXX.jpg
X: Sequence Number
- **Add sequence number suffix (limited value)**
File Name: imageXX.jpg
X: Sequence Number

The file name suffix will end at the value entered in this box. For example, if the setting is up to "10," the file name will start from 00, end at 10, and then start all over again.

- **Overwrite** - The original image on the FTP site will be overwritten by the new uploaded file with a static filename.

Motion Detection

Motion Detection allows the video server to detect motion and trigger alarms when motion in the detected area exceeds the determined sensitivity threshold value.

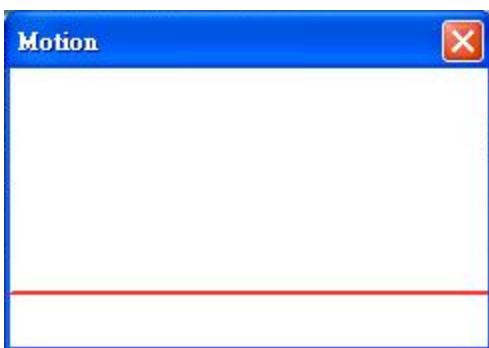
The screenshot shows the 'Motion Detection' configuration page in the SecuGen interface. The page is divided into a sidebar, a top navigation bar, and a main content area. The sidebar lists various system settings, with 'Motion detection' currently selected. The top navigation bar includes links for Home, System (active), Streaming, PTZ, and Logout. The main content area is titled 'Motion Detection' and contains several sections: 'Motion Detection' with radio buttons for 'Off' (selected) and 'On'; 'Motion Detection Setting' with input fields for 'Sampling pixel interval [1-10]' (1), 'Detection level [1-100]' (55), 'Sensitivity level [1-100]' (80), and 'Time interval(sec) [0-7200]' (10); 'Triggered Action' with checkboxes for 'Enable alarm output' (selected), 'Record stream to sd card', 'Send alarm message by FTP', 'Send alarm message by E-mail', 'Upload image by FTP', and 'Upload image by E-Mail'; a 'File Name' field set to 'image.jpg'; and 'Motion Detection Windows' with 'add' and 'delete' buttons. On the right side of the page, there is a 'Live View' pane showing a black screen with a red square indicating the motion detection window.

In the Motion Detection page, there is a motion detection window (red box) displayed on the Live View Pane. The Motion Detection window defines the motion detection area. To change the size of the Motion Detection window, drag the edge of the frame to resize.

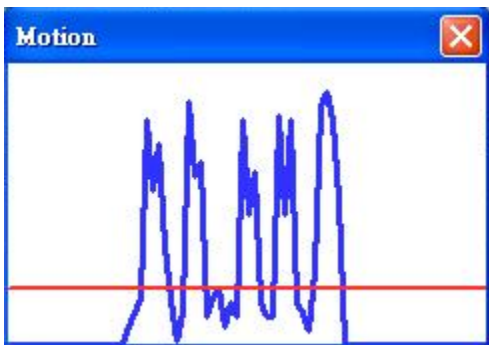
You can add up to 10 motion detection windows.

- Click **add** under the Live View Pane to add a Motion Detection window.
- To delete a Motion Detection window, use the mouse to select the frame and click **delete**.

When motion detection is activated, the **Motion** pop-up window will open.



When motion is detected, the signals will be displayed on the Motion window as shown below.



Motion Detection

Turn motion detection on or off. The default setting is Off.

Motion Detection Setting

- **Sampling pixel interval [1-10]** – Default value is 10, which means system will take one sampling pixel for every 10 pixels.
- **Detection level [1-100]** – Default detection level is 10. This item sets the detection level for each sampling pixel; the smaller the value, the more sensitive it is.
- **Sensitivity level [1-100]** – The default sensitivity level is 80, which means if 20% or more sampling pixels are detected as changing, the system will detect motion. The bigger the value, the more sensitive it is. As the sensitivity value is increased, the red horizontal line in the motion indication window will be lowered accordingly.

- **Time interval (sec) [0-7200]** – The default interval is 10. The value is the interval between each detected motion event.

Triggered Action

You can specify which actions the network device should take when motion is detected.

- **Enable Alarm Output** – Select this option to activate the alarm output.
- **Send Message by FTP/E-Mail** – Select to send an alarm message to the configured FTP and/or E-Mail when an alarm event occurs.
- **Upload Image by FTP** – Select to assign an FTP site. When the alarm is triggered, event images will be uploaded to the configured FTP site.
- **Upload Image by E-Mail** - Select to assign an e-mail address. When the alarm is triggered, event images will be sent to the configured e-mail address.

Note Make sure SMTP or FTP configuration has been completed. See the Mail and FTP section of this manual for further details.

File Name

Enter a file name in the box, ex. image.jpg. The uploaded image's file name format can be set in this section. Please select the one that meets your requirements.

- **Add date/time suffix**
File name: imageYYMMDD_HHNNSS_XX.jpg
Y: Year, M: Month, D: Day
H: Hour, N: Minute, S: Second
X: Sequence Number
- **Add sequence number suffix (no maximum value)**
File name: imageXXXXXXXX.jpg
X: Sequence Number
- **Add sequence number suffix (limited value)**
File Name: imageXX.jpg
X: Sequence Number

The file name suffix will end at the value entered in this box. For example, if the setting is up to "10," the file name will start from 00, end at 10, and then start all over again.

- **Overwrite** - The original image on the FTP site will be overwritten by the new uploaded file with a static filename.

Storage Management

The video server has an integrated microSD™ card slot that can be used to record video or images. The card slot is compatible with a microSD™ card up to 4GB (not included).

The screenshot shows the 'Storage Management' page of a Secugen web interface. The top navigation bar includes 'Home', 'System' (selected), 'Streaming', 'PTZ', and 'Logout'. A left sidebar lists various system settings: System, Security, Network, DDNS, Mail, FTP, Application, Motion detection, Storage management (selected), Recording, Camera Control, File location, View log file, View user information, View parameters, Factory default, Software version, Software upgrade, and Maintenance.

The main content area is titled 'Storage Management' and contains three sections:

- Device information:** Displays details about the microSD card.

Device type:	SD card	Total size:	1978572 KB
Free space:	46248 KB	Full:	No
Status:	Available		
- Device setting:** Includes a 'Format device' button with a 'Format' label.
- Disk cleanup setting:** Includes a checkbox for 'Enable automatic disk cleanup'. Below it, 'Remove recordings older than:' is set to '1' day(s), and 'Remove oldest recordings when disk is:' is set to '85' % full. A 'Save' button is at the bottom.
- Recording list:** A table showing files saved to the card.

FileName	Size
A_20100827_160743.avi	1544 KB
M_20100827_160645.avi	1583 KB
M_20100907_132226.avi	7968 KB
M_20100907_133302.avi	7406 KB
M_20100907_133352.avi	6798 KB

Below the table are 'Remove', 'Sort', and 'download' buttons.

Device Information – Displays the storage total size and free space information of the included microSD™ card.

Device Setting – Allows you to format the microSD card.

Device Cleanup Setting – Use this feature to enable overwrite settings on the SD card. The network device can remove files from the card after they reach a certain age, or when the card is a certain percent full.

Recording List – Displays a list of files saved to the card. You can delete files from the card, or save them to your local PC.

Note If you are using Windows Vista or 7, you will need to change the Snapshot location. Windows UAC does not allow internet programs to write directly to C:\ for security reasons.

Recording

The recording schedule allows you to set up scheduled recording to the microSD™ card.

The screenshot shows the Secugen web interface. The top navigation bar includes 'Home', 'System' (selected), 'Streaming', 'PTZ', and 'Logout'. On the left is a sidebar menu with items: System, Security, Network, DDNS, Mail, FTP, Application, Motion detection, Storage management, Recording (highlighted), Camera Control, File location, View log file, View user information, View parameters, Factory default, Software version, Software upgrade, and Maintenance. The main content area is titled 'Recording' and contains the 'Recording Schedule' section. It has three radio button options: 'Disable' (selected), 'Always', and 'Only during time frame'. Under 'Only during time frame', there are checkboxes for days of the week: Sun, Mon, Tue, Wed, Thu, Fri, and Sat. Below these are input fields for 'Start time' and 'Duration', followed by a 'Save' button.

Recording Schedule – The video server can be set up to record continuously until the card is full (or overwrite old data, see the Storage Management section). The network device can also be set up to record only during a scheduled time. Select the days that you would like to record, then input the recording start time and the recording duration.

Camera Control

When connecting a PTZ camera to the RS-485 control, use the camera control page to set up the camera information. Enable the **PTZ Camera** control, select a **protocol** and **baud rate**. The video server is compatible with OpenEye OPTIX 1, OPTIX 3, Pelco P and Pelco D control protocols.

securgen

HomeSystemStreamingPTZLogout

SystemSecurityNetworkDDNSMailFTPApplicationMotion detectionStorage managementRecordingCamera ControlFile locationView log fileView user informationView parametersFactory defaultSoftware versionSoftware upgradeMaintenance

RS485 Settings

RS485 Settings

Switch

Disable

PTZ Camera

Protocol

Optix-3

Baudrate

9600

Save

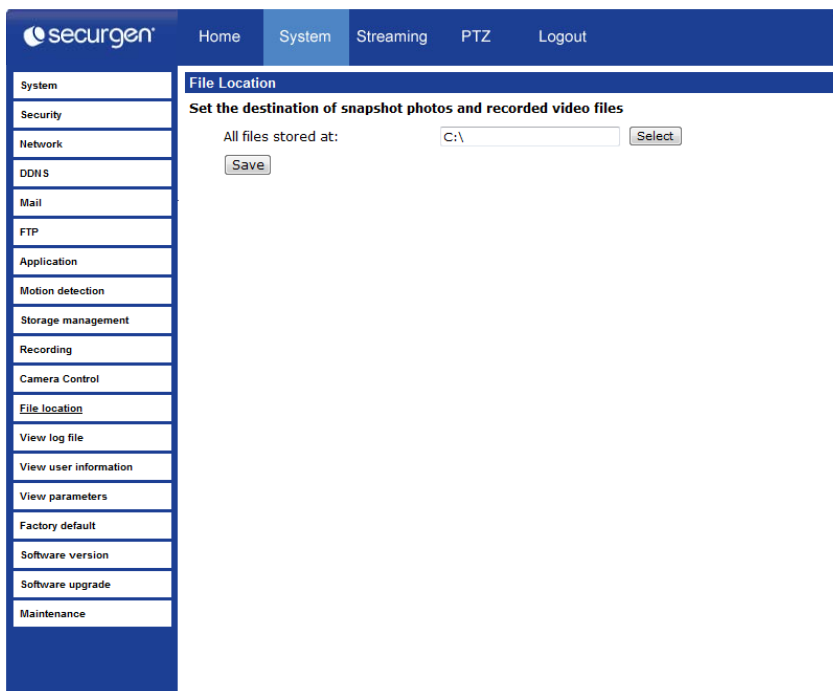
40

File Location

The video server supports a JPEG snapshot and AVI recording function. You can specify a storage location for the saved files. The default setting is: C:\.

Note If you are using Windows Vista or 7, you must change the File Location. Windows UAC does not allow internet programs to write directly to C:\ for security reasons.

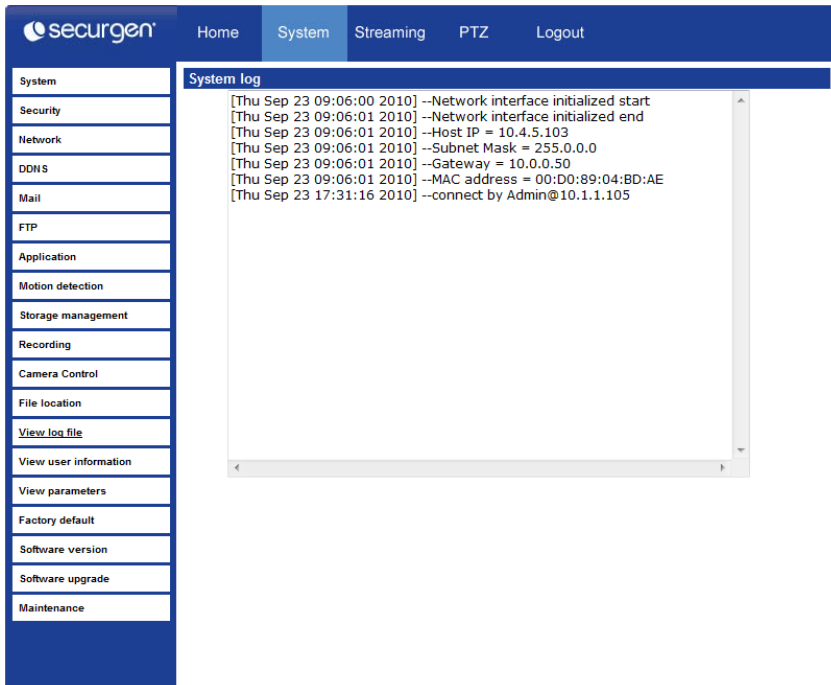
Note Make sure the selected file path contains valid characters such as letters and numbers.



The screenshot shows the 'securagen' web interface. The top navigation bar includes 'Home', 'System', 'Streaming', 'PTZ', and 'Logout'. The left sidebar lists various system settings: System, Security, Network, DDNS, Mail, FTP, Application, Motion detection, Storage management, Recording, Camera Control, File location (highlighted), View log file, View user information, View parameters, Factory default, Software version, Software upgrade, and Maintenance. The main content area is titled 'File Location' and contains the instruction 'Set the destination of snapshot photos and recorded video files'. Below this, there is a label 'All files stored at:' followed by a text input field containing 'C:\' and a 'Select' button. A 'Save' button is positioned below the input field.

View Log File

Click **View Log File** to view the system log file. The content of the file provides useful information about configuration and connections.



The screenshot displays the Securgen web interface. The top navigation bar includes links for Home, System (selected), Streaming, PTZ, and Logout. A left sidebar contains a menu with the following items: System, Security, Network, DDNS, Mail, FTP, Application, Motion detection, Storage management, Recording, Camera Control, File location, View log file (highlighted), View user information, View parameters, Factory default, Software version, Software upgrade, and Maintenance. The main content area is titled 'System log' and shows a list of log entries:

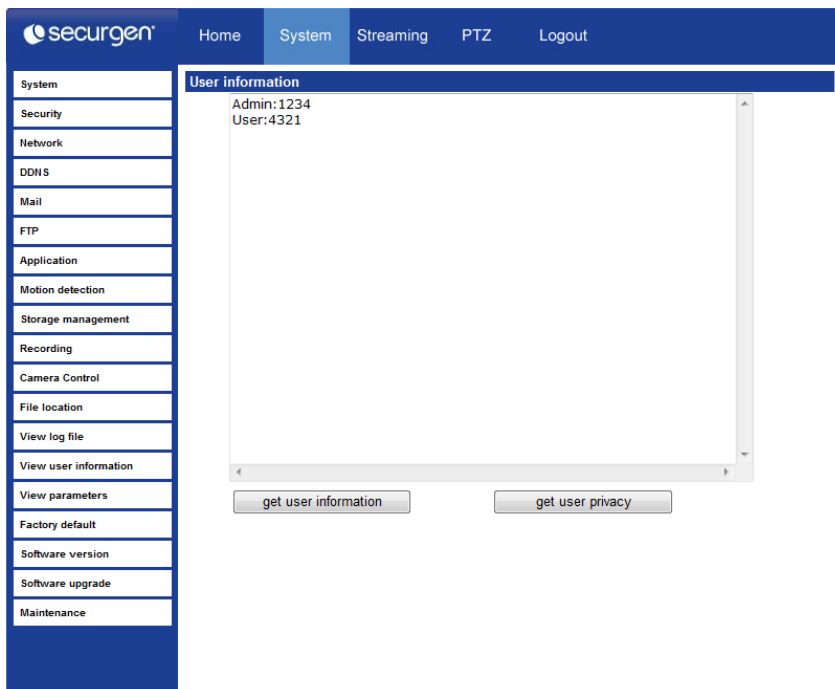
```
[Thu Sep 23 09:06:00 2010] --Network interface initialized start
[Thu Sep 23 09:06:01 2010] --Network interface initialized end
[Thu Sep 23 09:06:01 2010] --Host IP = 10.4.5.103
[Thu Sep 23 09:06:01 2010] --Subnet Mask = 255.0.0.0
[Thu Sep 23 09:06:01 2010] --Gateway = 10.0.0.50
[Thu Sep 23 09:06:01 2010] --MAC address = 00:D0:89:04:BD:AE
[Thu Sep 23 17:31:16 2010] --connect by Admin@10.1.1.105
```

View User Information

The Administrator can view each user's login information and privileges on the **View User Information** page

View User Login Information

All users for the video server are listed under **User information**. The example below shows that the Admin password is 1234 and there is one user with the username User and the password 4321.



View User Privilege

Select a user account from the list and click **get user privacy** to view the permissions for the user account.

View Parameters

Click **View Parameters** to view the system parameter settings.

secugen Home System Streaming PTZ Logout

System
Security
Network
DDNS
Mail
FTP
Application
Motion detection
Storage management
Recording
Camera Control
File location
View log file
View user information
View parameters
Factory default
Software version
Software upgrade
Maintenance

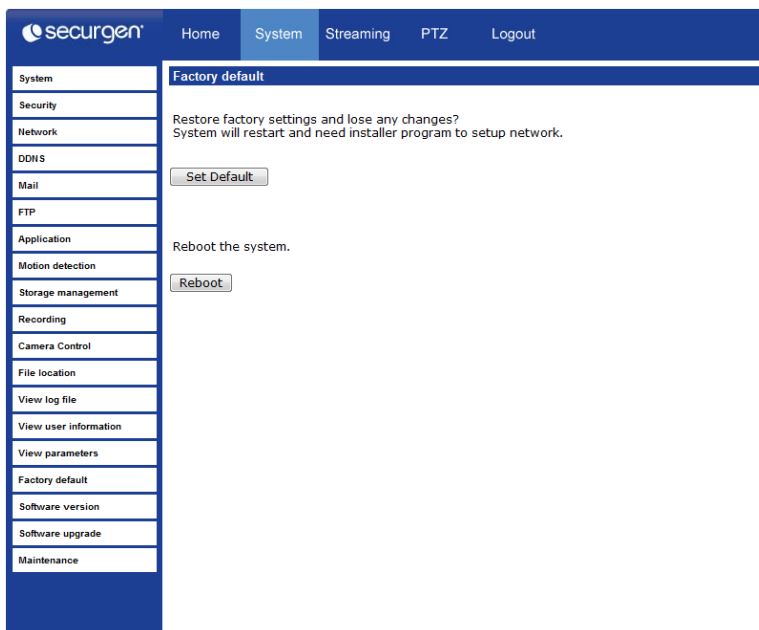
Parameter list

VideoServer Initial Configuration File

```
=====
[System]
=====
system host name = <Elliot>
time zone = <GMT-8>
enable daylight saving = <0>
daylight saving offset = <01:00:00>
daylight saving start month = <0>
daylight saving start day type = <date>
daylight saving start day = <1>
daylight saving start time = <00:00:00>
daylight saving end month = <0>
```

Factory Default

Use the factory default page to reset the video server to factory default setting if necessary.



Set Default

Click **Set Default** to reset the network device to the factory default settings. The system will restart in 30 seconds.

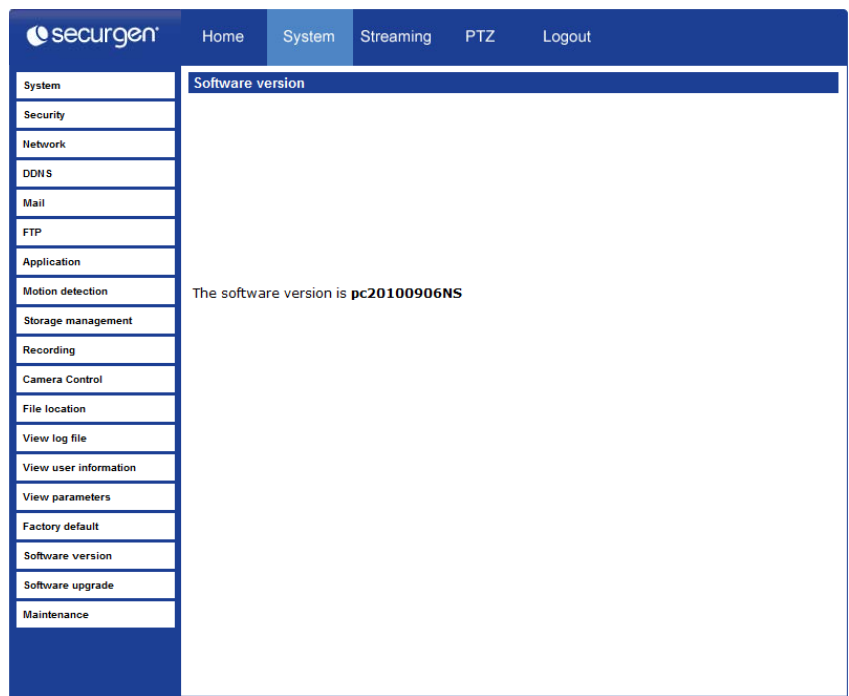
Note The IP address will be restored to default IP address.

Reboot

Click **Reboot** to restart the network device without changing the current device settings.

Software Version

The Software Version page displays the current software version.



Software Upgrade

securgen Home System Streaming PTZ Logout

System
Security
Network
DDNS
Mail
FTP
Application
Motion detection
Storage management
Recording
Camera Control
File location
View log file
View user information
View parameters
Factory default
Software version
Software upgrade
Maintenance

Upgrade

Follow These Steps To Do The Software Upgrade

Step1:
Upload the binary file

Step2:
Select binary file you want to upgrade

Step3:
Click the upgrade button to start the upgrade process

Upgrading the Video Server Viewer Software

Note Make sure the new firmware file is available before starting a software upgrade. Do not change the file name, or the system will not be able to update to the new firmware.

1. Click **Browse** and find the upgrade file.
2. Select the file name from the list under **Step 2**.
3. Click **Upgrade**. The system will check to find the upgrade file, and then start to upload the upgrade file. The upgrade status bar will display on the page. When it reaches 100%, the upgrade process is finished.

When the upgrade process is complete the viewer will return to Home page.

4. Close the internet browser.
5. Go to the **Windows Control Panel** and double-click **Add or Remove Programs**. Locate the **Camera Viewer** software on the **Currently installed programs** list, and click **Remove** to uninstall the previous software version.

6. Open the internet browser again and log in to the network device. The system will automatically download the new version of the Camera Viewer software.

Maintenance

Export the current configuration of the video server or import a configuration.

Note Do not import the configuration from a different Securgen IP device.

The screenshot displays the Securgen web interface. At the top, a dark blue navigation bar contains the Securgen logo and links for Home, System (which is highlighted), Streaming, PTZ, and Logout. On the left side, a vertical menu lists various system settings: System, Security, Network, DDNS, Mail, FTP, Application, Motion detection, Storage management, Recording, Camera Control, File location, View log file, View user information, View parameters, Factory default, Software version, Software upgrade, and Maintenance (which is highlighted). The main content area is titled 'Maintenance' and is divided into two sections. The 'Export Files' section includes the text 'Export configuration files' and an 'Export' button. The 'Upload Files' section includes the text 'Select configuration files', a file selection input field, a 'Browse...' button, and an 'Upload' button.

Video and Audio Streaming Settings

On the Streaming tab, you can configure specific video resolution, video compression mode, video protocol, and audio transmission mode.

Video Format

Select the desired video resolution for the video server on the Video Format page. The DVR will record video based on the resolution selected here.

securgen Home System **Streaming** PTZ Logout

Video Format

Video Resolution :

- ☒ H.264 D1 (30fps) + MJPEG D1 (30fps)
- ☐ H.264 D1 (30fps) + MJPEG CIF (30fps)
- ☐ H.264 D1 (30fps) + H.264 D1 (30fps)
- ☐ H.264 D1 (30fps) + H.264 CIF (30fps)

Save

Note :
Image attachment by FTP or E-mail will be available only while MJPEG streaming is selected.

Video Deinterlace :

- ☒ 3D Deinterlacing
- ☐ Intra Field Deinterlacing
- ☐ Inter Field Deinterlacing (off)

Save

GOV Settings :

H.264-1 GOV Length :

H.264-2 GOV Length :

Save

Video Resolution – The video server provides two sets of video dual streaming formats like the following:

- H.264 D1 (30fps) + MJPEG D1 (30fps)
- H.264 D1 (30fps) + MJPEG CIF (30fps)

Note When using H.264 + MJPEG, the MJPEG stream is always handled by the device as stream 1 and the H.264 stream is stream 2.

Video Deinterlace – The video server supports de-interlacing. You can choose to activate the de-interlacing function or disable the function by selecting a mode from the list as shown below:

- Inter Field Deinterlacing (off)
- Intra Field Deinterlacing

GOV Settings – Sets the Group of Video (GOV) or Group of Pictures (GOP) length for the H.264 streams. Use this to increase bandwidth if necessary.

Video Compression

Select an MJPEG/H.264 compression mode appropriate for the application. You can also select to display compression information on the Home page.

Video Compression

MJPEG Compression setting :

- ☐ high compression , low bitrate , low quality
- ☒ middle compression , default
- ☐ low compression , high bitrate , high quality

H.264 Compression setting :

- ☐ highest compression , lowest quality
- ☐ middle compression , default
- ☒ low compression , highest quality

☒ Display compression information in the home page

CBR mode setting :

- ☐ enable H.264-1 CBR mode
- ☐ enable H.264-2 CBR mode

MJPEG compression settings:

- high compression, low bitrate, low quality
- middle compression, default
- low compression, high bitrate, high quality

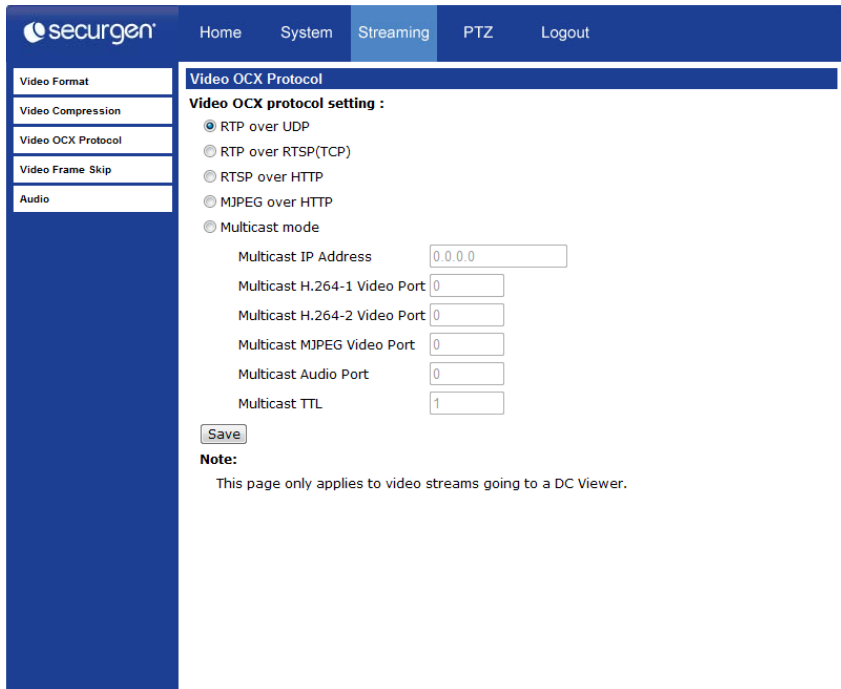
H.264 compression settings:

- Highest compression, lowest quality

- Middle compression, default
- Low compression, highest quality

Video OCX Protocol

On the Video OCX protocol page, you can select different protocols for streaming media over the network.



Video OCX protocol setting options include:

- RTP over UDP
- RTP over RTSP(TCP)
- RTSP over HTTP
- MJPEG over HTTP

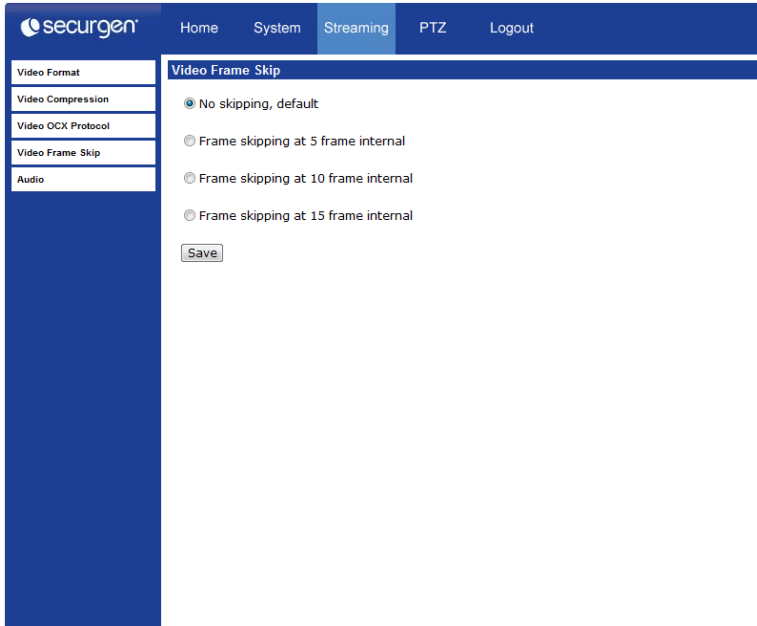
Select a mode according to your data delivery requirements. If you are transmitting over the internet using a router and port forwarding, you will need to use RTP over RTSP (UDP). You will also need to forward the RTSP port to the network device (see the network setup page to find the RTSP port).

Multicast Mode

1. Enter all required data, including multicast IP address, H.264 video port, MJPEG video port, audio port and TTL into each box.
2. Click **Save** to confirm the setting.

Video Frame Skip

Use video frame skipping to save bandwidth if necessary.



The screenshot shows the Securgen web interface. The top navigation bar includes 'Home', 'System', 'Streaming' (selected), 'PTZ', and 'Logout'. On the left, a sidebar menu lists 'Video Format', 'Video Compression', 'Video OCX Protocol', 'Video Frame Skip' (selected), and 'Audio'. The main content area is titled 'Video Frame Skip' and contains three radio button options: 'No skipping, default' (selected), 'Frame skipping at 5 frame internal', and 'Frame skipping at 10 frame internal'. There is also a 'Frame skipping at 15 frame internal' option. A 'Save' button is located at the bottom of the options.

MJPEG/H.264 Frame Skipping options include:

- No skipping, default
- Frame skipping at 5 frame internal
- Frame skipping at 10 frame internal
- Frame skipping at 15 frame internal

Note Higher frame skipping rate will decrease video smoothness.

Audio

The audio setting page is shown as below. In the Audio page, the Administrator can select one transmission mode and audio bit rate.

The screenshot shows the 'Audio' configuration page in the Secugen web interface. The top navigation bar includes 'Home', 'System', 'Streaming' (the active tab), 'PTZ', and 'Logout'. The left sidebar lists 'Video Format', 'Video Compression', 'Video OCX Protocol', 'Video Frame Skip', and 'Audio' (the active section). The main content area is titled 'Audio' and contains the following settings:

- Transmission Mode:** Four radio button options are present:
 - ☐ Full-duplex (Talk and listen simultaneously)
 - ☐ Half-duplex (Talk or listen, not at the same time)
 - ☐ Simplex (Talk only)
 - ☒ Simplex (Listen only)
 - ☒ Disable
- Server Gain Setting:** Two dropdown menus are shown:
 - Input gain: 3
 - Output gain: 3
- Bit Rate:** A dropdown menu is set to 'uLAW'.

A 'Save' button is located at the bottom right of the settings area.

Transmission Mode

- **Full-duplex (Talk and Listen simultaneously)** – In Full-duplex mode, the local and remote sites can communicate with each other simultaneously, i.e. both sites can speak and be heard at the same time.
- **Half-duplex (Talk or Listen, not at the same time)** – In Half-duplex mode, the local/remote site can only talk or listen to the other site at a time.
- **Simplex (Talk only)** – In Talk only Simplex mode, the local/remote site can only talk to the other site
- **Simplex (Listen only)** - The local/remote site can only listen to the other site.
- **Disable** - Turn off the audio transmission function.

PTZ Settings

Use the PTZ tab to program a PTZ camera using the on screen menu of the camera.



OSD Menu

Click Menu to open the OSD menu of the camera, then use the arrow and enter buttons to navigate the camera menu.

Logout

Click the **Logout** tab to open the login window and log in with a different user name and password.

SPECIFICATIONS

VIDEO SERVER SPECIFICATIONS

Model	NE-VS201
Video Input	1CH BNC
Video Output	1CH BNC loop out
Compression	H.264 / MJPEG
Dual Streaming	H.264 + H.264 / H.264 + MJPEG
Resolution	NTSC: 720 x 480 / PAL: 720 x 576
Frame Rate	NTSC: 30IPS @ D1 / PAL: 25IPS @ D1
Motion Detection	Yes
Audio Inputs	1
Audio Outputs	1
Audio Streaming	Full-duplex, Half-duplex, Simplex
Audio Compression	G.711 / G.726
Alarm Input	1
Alarm Output	1
Network	10/100 Ethernet
Web Connection	IE (ActiveX)
User Accounts	20
User Levels	Administrator or User
Connections	TCP/UDP/IP, HTTP, FTP, SMTP, ARP, ICMP, DHCP, Telnet, RTP/RTSP
PTZ Control	RS-485
PTZ Protocols	Pelco D, Pelco P, Optix III, Optix I
Operational Temp	14°F ~ 122°F (-10°C ~ 50°C)
Active/Passive Cooling	Passive Cooling
Power Consumption	4.2W
Rated Amperage	< 350mA
Input Voltage	12vDC / PoE
Weight	0.44 lbs (0.2kg)
Dimensions	L: 5.39" (137mm) x W: 3.9" (99mm) H: 1.1" (28mm)
Housing	White / Blue
Voltage Out	12vDC
Power Out	6W
Max Current	500mA

Recommended Application	Fixed Dome Cameras. Do not use to power more than one other device.
--------------------------------	--

www.securgen.com

1-888-542-1103

© 2011 Securgen

All rights reserved. No part of this publication may be reproduced by any means without written permission from Securgen. The information in this publication is believed to be accurate in all respects. However, Securgen cannot assume responsibility for any consequences resulting from the use thereof. The information contained herein is subject to change without notice. Revisions or new editions to this publication may be issued to incorporate such changes.